In the Claims:

Claims 1-12 (Cancelled).

13. (New) A method for encoding speech comprising:

sampling speech to obtain successive voice frames each comprising a predetermined number of samples;

determining parameters of a linear prediction model for each voice frame, the parameters comprising a long-term excitation word extracted from an adaptive coded directory using a first linear prediction filter and an associated long-term gain, and comprising a short-term excitation word extracted from a fixed coded directory and an associated short-term gain;

updating the adaptive coded directory based upon the extracted long-term excitation word and the extracted short-term excitation word; and

updating the first linear prediction filter using the short-term excitation word filtered by a second filter, the second filter having an order greater than or equal to 1 and coefficients thereof depending on the long-term gain for reducing a short-term excitation contribution when a long-term excitation gain is greater than a threshold.

14. (New) A method according to Claim 13, wherein the threshold is equal to 0.8.

15. (New) A method according to Claim 13, wherein the second filter has an order equal to 1, a transfer function equal to $B0+B1\ z^{-1}$, a first coefficient B0 equal to $1/(1+\beta*\min(Ga,1))$, and a second coefficient B1 equal to

$\beta*\min(Ga,1)/(1+\beta*\min(Ga,1))$, where β is a real number of absolute value less than 1, Ga is the long-term gain and min(Ga,1) designates a minimum value between Ga and 1.

16. (New) A method according to Claim 13, wherein extraction of the long-term excitation word is performed using a first weighting filter; and wherein extraction of the short-term excitation word is performed using a second weighting filter cascaded with a third weighting filter; the first weighting filter having a transfer function in which a denominator thereof is equal to a numerator of a transfer function of the second weighting filter.

17. (New) A method according to Claim 16, wherein the first and third weighting filters are equal.

18. (New) A method according to Claim 16, wherein the first weighting filter comprises a first formantic weighting filter; and wherein the second weighting filter comprises a second formantic weighting filter.

19. (New) A method according to Claim 16, further comprising updating the second and third weighting filters with the short-term excitation word filtered by the second filter.

20. (New) A speech encoding device comprising:

sampling means for sampling speech to obtain successive voice frames each comprising a predetermined number of samples; and

processing means for determining parameters of a

linear prediction model for each voice frame, said processing means comprising

first extraction means comprising a first linear prediction filter for extracting a long-term excitation word from an adaptive coded directory and for calculating an associated long-term gain,

second extraction means for extracting a short-term excitation word from a fixed coded directory and for calculating an associated short-term gain;

first updating means for updating the adaptive coded directory based upon the extracted long-term excitation word and the extracted short-term excitation word, and

second updating means comprising a second filter for filtering the short-term excitation word used for updating said first linear prediction filter, said second filter having an order greater than or equal to 1 and coefficients thereof depending on the long-term gain for reducing a short-term excitation contribution when a long-term excitation gain is greater than a threshold.

21. (New) A speech encoding device according to Claim 20, wherein the threshold is equal to 0.8.

22. (New) A speech encoding device according to Claim 20, wherein said second filter has an order equal to 1, a transfer function equal to $B0+B1\ z^{-1}$, a first coefficient B0 equal to $1/(1+\beta*\min(Ga,1))$, and a second coefficient B1 equal to $\beta*\min(Ga,1)/(1+\beta*\min(Ga,1))$, where β is a real number of

absolute value less than 1, Ga is the long-term gain and min(Ga,1) designates a minimum value between Ga and 1.

23. (New) A speech encoding device according to Claim 20, wherein said first extraction means comprises a first weighting filter; and wherein said second extraction means comprises a second weighting filter and a third perceptual weighting filter cascaded together; said first weighting filter having a transfer function in which a denominator thereof is equal to a numerator of a transfer function of said second weighting filter.

24. (New) A speech encoding device according to Claim 23, wherein said first and third weighting filters are equal.

25. (New) A speech encoding device according to Claim 23, wherein said first weighting filter comprises a first formantic weighting filter; and wherein said second weighting filter comprises a second formantic weighting filter.

26. (New) A speech encoding device according to Claim 23, wherein said second updating means also updates said second and third weighting filters with the short-term excitation word filtered by said second filter.

27. (New) A speech encoding device according to Claim 20, wherein said processing means is implemented within a processor.

28. (New) A speech encoding device comprising:

a sampling circuit for sampling speech to obtain successive voice frames each comprising a predetermined number of samples; and

a processor for determining parameters of a linear prediction model for each voice frame, said processor comprising

a first extraction module implementing a first linear prediction filter for extracting a long-term excitation word from an adaptive coded directory and for calculating an associated long-term gain,

a second extraction module for extracting a short-term excitation word from a fixed coded directory and for calculating an associated short-term gain,

a first updating module for updating the adaptive coded directory based upon the extracted long-term excitation word and the extracted short-term excitation word, and

a second updating module implementing a second filter for filtering the short-term excitation word used for updating said first linear prediction filter.

29. (New) A speech encoding device according to Claim 28, wherein said second filter has an order greater than or equal to 1 and coefficients thereof depend on the long-term gain for reducing a short-term excitation contribution when a long-term excitation gain is greater than a threshold.

30. (New) A speech encoding device according to

Claim 28, wherein the threshold is equal to 0.8.

31. (New) A speech encoding device according to Claim 28, wherein said second filter has an order equal to 1, a transfer function equal to $B0+B1\ z^{-1}$, a first coefficient B0 equal to $1/(1+\beta*\min(Ga,1))$, and a second coefficient B1 equal to $\beta*\min(Ga,1)/(1+\beta*\min(Ga,1))$, where β is a real number of absolute value less than 1, Ga is the long-term gain and $\min(Ga,1)$ designates a minimum value between Ga and 1.

32. (New) A speech encoding device according to Claim 28, wherein said first extraction module comprises a first weighting filter; and wherein said second extraction module comprises a second weighting filter and a third weighting filter cascaded together; said first weighting filter having a transfer function in which a denominator thereof is equal to a numerator of a transfer function of said second weighting filter.

33. (New) A speech encoding device according to Claim 32, wherein said first and third weighting filters are equal.

34. (New) A speech encoding device according to Claim 32, wherein said first weighting filter comprises a first formantic weighting filter; and wherein said second weighting filter comprises a second formantic weighting filter.

35. (New) A speech encoding device according to Claim 32, wherein said second updating module also updates

said second and third weighting filters with the short-term excitation word filtered by said second filter

36. A mobile cell phone comprising:

an antenna;

transmission circuitry connected to said antenna; and

an encoding device connected to said transmission circuitry and comprising

a sampling circuit for sampling speech to obtain successive voice frames each comprising a predetermined number of samples,

a processor for determining parameters of a linear prediction model for each voice frame, said processor comprising

a first extraction module implementing a first linear prediction filter for extracting a long-term excitation word from an adaptive coded directory and for calculating an associated long-term gain,

a second extraction module for extracting a short-term excitation word from a fixed coded directory and for calculating an associated short-term gain,

a first updating module for updating the adaptive coded directory based upon the extracted long-term excitation word and the extracted short-term excitation word, and

a second updating module implementing a second filter for filtering the short-term excitation word used for updating said first

linear prediction filter.

37. (New) A mobile cell phone according to Claim 36, wherein said second filter has an order greater than or equal to 1 and coefficients thereof depend on the long-term gain for reducing a short-term excitation contribution when a long-term excitation gain is greater than a threshold.

38. (New) A mobile cell phone according to Claim 36, wherein the threshold is equal to 0.8.

39. (New) A mobile cell phone according to Claim 36, wherein said second filter has an order equal to 1, a transfer function equal to $B0+B1\ z^{-1}$, a first coefficient B0 equal to $1/(1+\beta*\min(Ga,1))$, and a second coefficient B1 equal to $\beta*\min(Ga,1)/(1+\beta*\min(Ga,1))$, where β is a real number of absolute value less than 1, Ga is the long-term gain and min(Ga,1) designates a minimum value between Ga and 1.

40. (New) A mobile cell phone according to Claim 36, wherein said first extraction module comprises a first weighting filter; and wherein said second extraction module comprises a second weighting filter and a third weighting filter cascaded together; said first weighting filter having a transfer function in which a denominator thereof is equal to a numerator of a transfer function of said second weighting filter.

41. (New) A mobile cell phone according to Claim 40, wherein said first and third weighting filters are equal.

42. (New) A mobile cell phone according to Claim 40, wherein said first weighting filter comprises a first formantic weighting filter; and wherein said second weighting filter comprises a second formantic weighting filter.

43. (New) A mobile cell phone according to Claim 40, wherein said second updating module also updates said second and third weighting filters with the short-term excitation word filtered by said second filter.